



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/654,798	09/04/2003	Philip Houghton	15006US01	6962
23446 7590 10/31/2007 MCANDREWS HELD & MALLOY, LTD 500 WEST MADISON STREET SUITE 3400 CHICAGO, IL 60661			EXAMINER TIEU, BINH KIEN	
			ART UNIT 2614	PAPER NUMBER
			MAIL DATE 10/31/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/654,798	HOUGHTON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	/BINH K. TIEU/	2614	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 September 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30-33 is/are allowed.
- 6) ☒ Claim(s) 1-20,25-29,34 and 35 is/are rejected.
- 7) ☒ Claim(s) 21-24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Objections*

1. Claims 2, 3, 6, 9, 11, 19, 26, 28, 29, 30, 34, and 35 are objected to because of the following informalities: Each of the above claim recites a synonym "NTP" which maybe stands for "Network Termination Point," "Network Time Protocol," etc. For an examination purpose, the Examiner assumed that the synonym "NTP" is "Network Time Protocol." Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-9, 11-14 and 16-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Heitmann (US. Pat. #: US 7,190,703, *as cited in the previous Office Action*).

**Regarding claim 1**, Heitmann teaches a system for transmitting time sensitive data (i.e., a system for synchronization of base stations as shown in figure 1) from at least a first node (i.e., base station BS1) to at least a second node (i.e., BS2) comprising a processor used to process at least a first time request (i.e., a time request message ZA1) and at least a second time request

Art Unit: 2614

(i.e., a time request message ZA2), and to generate at least a first absolute time (i.e., up-to-date time information ZI1) and at least a second absolute time (i.e., up-to-date time information ZI2), respectively, for said at least a first node and said at least a second node (col.5, lines 6-24).

Regard claims 2-3, col.5, lines 37-40 and col.4-47.

Regarding claims 4-5, note col.4, lines 31-44.

Regarding claims 6, Heitmann teaches a method of transmitting time sensitive data from at least a first computing device to at least a second computing device in a telecommunication system comprising synchronizing said at least first and said at least second computing devices to an NTP server (i.e., the switching device or time information server synchronizing the base stations BS1 and BS2, col.5, lines 6-24 and col.5, line 57 through col.6, line 15).

Regarding claims 7-8 and 10, note col.4, lines 31-44.

Regarding claim 9, note col.4, line 65 through col.5, line 10.

**Regarding claims 11**, Heitmann teaches a method of transmitting time sensitive data from at least a first computing device to at least a second computing device in a communication system comprising:

requesting absolute time from an NTP server (i.e., sending a time request message to a switching device or time information server);

receiving said absolute time; and

inputting an adjustment parameter derived from said absolute time into a circuitry to synchronize said at least a first computing device to said at least second computing device (col.5, line 57 through col.6, line 15).

Regarding claims 12-14, note col.4, lines 31-44.

Art Unit: 2614

Regarding claims 16-17, note col.7, lines 9-47.

**Regarding claim 18**, Heitmann teaches a method of transmitting time sensitive data from at least a first computing device to at least a second computing device in a communication system comprising:

receiving absolute time requests from said at least first and at least second computing devices; and

transmitting said absolute time to said at least first and at least second computing devices; wherein said absolute time is used to synchronize said at least a first and at least a second computing devices (col.5, lines 6-24 and col.5, line 57 through col.6, line 15).

**Regarding claim 19**, Heitmann teaches a method of synchronizing a transmitting computing device to a receiving computing device of a packet switched telecommunication network comprising:

requesting an absolute time from an NTP server;

receiving said absolute time; and

inputting an adjustment parameter into a frequency controlling hardware of said transmitting computing device or said receiving computing device (col.5, lines 6-24 and col.5, line 57 through col.6, line 15).

4. Claim 6, 11, 19 and 26 is rejected under 35 U.S.C. 102(e) as being anticipated by Ransom et al. (Pub. No.: US 2003/0204756).

**Regarding claim 6**, Ransom et al. ("Ransom") teaches a method of transmitting time sensitive data from at least a first computing device to at least a second computing device in a

Art Unit: 2614

telecommunication system comprising synchronizing said at least first and said at least second computing devices to an NTP server (see paragraph [0122]).

***Regarding claim 11***, Ransom teaches a method of transmitting time sensitive data from at least a first computing device to at least a second computing device in a communication system comprising:

requesting absolute time from an NTP server (i.e., sending a time request message to a switching device or time information server);

receiving said absolute time; and

inputting an adjustment parameter derived from said absolute time into a circuitry to synchronize said at least a first computing device to said at least second computing device (see paragraph [0122]).

***Regarding claim 19***, Ransom teaches a method of synchronizing a transmitting computing device to a receiving computing device of a packet switched telecommunication network comprising:

requesting an absolute time from an NTP server;

receiving said absolute time; and

inputting an adjustment parameter into a frequency controlling hardware of said transmitting computing device or said receiving computing device (see paragraph [0122]).

***Regarding claim 26***, Ransom et al. (“Ransom”) teaches a method of transmitting higher bandwidth voice band data comprising synchronizing one or more computing devices to an NTP server (see paragraphs [0084] and [0122]).



***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 10, 15, 20, 29 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ransom et al. (Pub. No.: US 2003/0204756) in view of Gacek (US Pat. #: 6,795,205).

Regarding claims 10, 15 and 20, Ransom teaches all subject matters as claimed above, except that the computing devices comprising residential VoIP gateways. However, Gacek teaches see features in col.5, line 66 through col.6, line 16 for a purpose of providing subscribers with access to Internet.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the features of the computing devices comprising

Art Unit: 2614

residential VoIP gateways, as taught by Gacek, into view of Ransom in order to provide access to Internet from their homes.

Regarding claims 29 and 35, Ransom teaches a method of synchronizing a transmitting computing device to a receiving computing device of a packet switched telecommunication network comprising the steps of receiving an absolute time from an NTP server; receiving said absolute time; and adjusting for accurate time to their clock on data transmissions (see paragraph [0122]).

It should be noticed that Ransom fails to clearly teach the feature of computing devices comprising residential VoIP gateways. However, Gacek teaches see features in col.5, line 66 through col.6, line 16 for a purpose of providing subscribers with access to Internet.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the features of the computing devices comprising residential VoIP gateways, as taught by Gacek, into view of Ransom in order to provide access to Internet from their homes.

7. Claims 25 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ransom et al. (Pub. No.: US 2003/0204756) in view of Kallio et al. (Pub. No.: US 2001/0022536).

Regarding claim 25, Ransom teaches all subject matters as claimed above, except that said frequency controlling hardware comprising a numerically controlled oscillator. However, Kallio et al. ("Kallio") teaches such oscillator in paragraphs [0038] and [0064] for a purpose of adjusting the oscillator with accurate time.



Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the features of the frequency controlling hardware comprising a numerically controlled oscillator, as taught by Kallio, into view of Ransom in order to adjusting the computer device with accurate time

Regarding claim 34, Ransom teaches a method of synchronizing a transmitting computing device to a receiving computing device of a packet switched telecommunication network comprising the steps of receiving an absolute time from an NTP server; receiving said absolute time; and adjusting for accurate time to their clock on data transmissions (see paragraph [0122]).

It should be noticed that Ransom fails to clearly teach said frequency controlling hardware comprising a numerically controlled oscillator. However, Kallio teaches such oscillator in paragraphs [0038] and [0064] for a purpose of adjusting the oscillator with accurate time.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the features of the frequency controlling hardware comprising a numerically controlled oscillator, as taught by Kallio, into view of Ransom in order to adjusting the computer device with accurate time

8. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ransom et al. (Pub. No.: US 2003/0204756) in view of Lin et al. (Pub. No.: US 2004/0087278).

Art Unit: 2614

Regarding claim 27, Ransom teaches all subject matters as claimed above, except that said higher bandwidth voice band data comprises V.90 or V.92. However, Lin et al. ("Lin") teaches such feature in paragraph [0037] for transmitting data signals over voiceband channel.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the feature of said higher bandwidth voice band data comprises V.90 or V.92, as taught by Lin, into view of Ransom in order to transmit the data signals over voice frequency channel.

9. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hostetter et al. (US. Pat. #: 5,450,395, *as cited in the previous Office Action*) in view of Ransom et al. (Pub. No.: US 2003/0204756).

Regarding claim 28, Hostetter et al. ("Hostetter") teaches a method of improving the signal to noise ratio of voice band data comprising synchronizing computing devices (col.1, lines 55-60).

It should be noticed that Hostetter fails to clearly teach the feature of syncing the computing devices to an NTP server. However, Ransom teaches such feature in paragraph [0122] for ensuring transferred messages having the correct time and their contents having accurate time.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the feature of syncing the computing devices to an NTP server, as taught by Ransom, into view of Hostetter in order to provide accurate time to the transmitted messages.

***Allowable Subject Matter***

10. Claims 21-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claims 30-32 would be allowable if rewritten or amended to overcome the objection(s), as set forth in this Office action.

***Response to Arguments***

12. Applicant's arguments filed 09/05/2007 have been fully considered but they are not persuasive.

A/. In response to the Applicants' arguments stated in the last paragraph on page 10 regarding the Examiner indicated the rejection of claims 26 and 27 "***without providing any type of argument or rationale whatsoever.***" The Examiner apologizes for those missing of claims 26 and 27 in the previous examination. However, the Examiner has provided in this Office Action the references for the claims rejection.

B/. In response to the Applicants' arguments stated on pages 12-13 regarding rejection of claim 21 and new claim 30. The Applicant correct stated that Heimann fails to teach limitations recited in dependent claim 21. Therefore, claim 21 is indicated as allowable claim in above "***Allowable Subject Matter***" along with new independent claim 30.

C/. In response to the Applicants' arguments stated on pages 13-15 regarding rejection of claims 22-24 and 31-33. Since claims 22-24 and 31-33 are dependent claims 21 and 30,

Art Unit: 2614

respectively, claims 22-24 and 31-33 are indicated as allowable based on limitations of claims 21 and 30.

D/. In response to the Applicants' arguments stated on page 15 regarding rejection of claim 25, see the new ground of rejection for claims 25 and 34 above.

E/. In response to the Applicants' arguments stated in the first paragraph, page 17 wherein the Applicants stated as followings:

***“The Applicants respectfully disagree with the Office Action’s interpretation and/or characterization of the base stations (BS1 and BS2) disclosed in Heimann. Heimann’s base stations (BS1 and BS2) do not teach “a first node” and “a second node” as recited in Claim 1” because a base station is different from a node. As described and supported by the specification of the present Application, a node may comprise an endpoint or computing device (see paragraphs 06 and 19 of the present Application)…”***

The Examiner respectfully disagrees with the Applicants' arguments above. First of all, the term “node” recited in claim 1 is very broad. The node, in a telecommunications network, may comprise and read on a computer system, an appliance, a workstation, a terminal, a server, a laptop, a handheld computer, a cellular phone, a central office, a base station, a wireless access point, a mobile subscriber center (MSC), radio network controller (RNC), etc... The Examiner did not see any limitations as disclosed in paragraphs 06 and 19 to define the term “node” as required in claim 1. Therefore, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a first node and a second node may comprise an endpoint or computing device such as a residential VoIP gateway) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

F/. In response to the Applicants' arguments stated in the second paragraph, page 17 wherein the Applicants stated as followings:

***"...Applicants have reviewed col.5, lines 37-40 of Heimann, however, nowhere do the Applicants find any disclosure of "a memory used by said processor in running and executing said NTP software program..."***

The Examiner respectfully disagrees with the Applicants' arguments above. In the col.5, lines 37-40 disclosed ***"...The illustrated functional components each may be in the form of software modules running on the system processor in the base station BS1..."*** It is clearly to understand that the software modules, according to those skilled in the art, are themselves timing synchronization software packets run by the system processor. The system processor always inherently has ROM and/or RAM memories where the software packets installed and ran. Assume that there are no such ROM and RAM memories for the base station BS1. How are the software modules installed and ran?

G/. In response to the Applicants' arguments stated in the last paragraph, page 17 to the first paragraph, page 18 wherein the Applicants stated as followings:

***"...Applicants have reviewed col.4, lines 31-44 of Heitmann; however, nowhere do the Applicants find any disclosure of "wherein said voice band data comprises fax or modem data..."***

The Examiner respectfully disagrees with the Applicants' arguments above. In the col.4, lines 31-44 of Heitmann disclosed:

***"...In addition to communications devices, data processing devices also can be connected to the local area network LAN... the local area network LAN is used for transmitting not only all the communications data but also all the control data between the switching device VE...Since a local area network can be extended very easily and can be easily have further communications and/or data processing device added to it..."***

Art Unit: 2614

From the above phrases, the communication data (voiceband data) and control data are transmitted by data processing devices between the switch device and bases stations. The data processing devices, according to those skilled in the art, are modems. The modems are often used to transmit communication data and control data among base stations and switching device, i.e., BTC, MSC, etc.

H/. In response to the Applicants' arguments stated on pages 17-23 in regarding to rejection of independent claims 6-19, the same responses stated in "E" through "G" for claim 1 above is applied equally to the Applicants' argument regarding to claim 6 as stated above. Also see the new group of rejection of claims 10, 15 and 20 above.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh K. Tieu whose telephone number is (571) 272-7510 and E-mail address: [BINH.TIEU@USPTO.GOV](mailto:BINH.TIEU@USPTO.GOV).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz, can be reached on (571) 272-7499 and **IF PAPER HAS BEEN MISSED FROM THIS OFFICIAL ACTION PACKAGE, PLEASE CALL CUSTOMER SERVICE FOR THE SUBSTITUTIONS OR COPIES.**

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Or faxed to:

(571) 273-8300

Hand Carry Deliveries to:

Customer Service Window  
(Randolph Building)  
401 Dulany Street  
Alexandria, VA 22314



Art Unit: 2614

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the FAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Binh Tieu", with a long horizontal line extending to the right.

BINH TIEU  
PRIMARY EXAMINER

Technology Division 2614

Date: October 2007